


<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/864,440	MARCUS ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Gordon J Stock	2877	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to correspondence received 13 January 2004.
2. ☒ The allowed claim(s) is/are 1-26.
3. ☒ The drawings filed on 1/13/04 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

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|---|--|
| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br/>Paper No./Mail Date _____</li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</li> <li>6. <input type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date _____</li> <li>7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input checked="" type="checkbox"/> Other <u>PTOL-413B</u>.</li> </ol> |
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### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Robert Walker on April 1, 2004.

Specifically, claims 1 and 15 will be amended to eliminate any lack of antecedent basis problems with the phrase "the narrow pass filter" since "a narrow bandpass filter" appears earlier on in the claims. As for claims 10 and 15, the claims will be amended to remove the possible objection to the specification for providing a lack of antecedent basis to the claimed subject matter. Specifically, "the motion image of the film" being correlated to the signal representing the motion of the film with the capturing of real and reflected images of the reflective photonic probe appears to lack antecedent basis in the specification. Subsequently, "the motion image of the film" will be replaced by "the real and reflected motion images of the reflective photonic probe."

The following are the amended claims with corrections:

1. (currently amended) Apparatus for measuring deflection of a film in a film gate having an aperture illuminated by a primary light source having an output spectrum, comprising:

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- a) a reflective photonic probe mounted in the film gate, the reflective probe having at least one input output fiber and at least one detection optical fiber cleaved and polished flat normal to their fiber axes and mounted parallel and at a fixed spacing relative to each other, and;
- b) a measurement light source coupled to the reflective photonic probe and emitting a wavelength of light outside of the primary light source's spectrum;
- c) a photodetector coupled to the reflective photonic probe;
- d) a narrow bandpass filter located between the photodetector and the reflective photonic probe, the narrow bandpass filter passing the light from the measurement light source and blocking the light from the primary light source; and
- e) signal processing electronics connected to the photodetector for producing a signal representing the deflection of the film in the film gate as a function of time.

10. (currently amended) The apparatus claimed in claim 6, further comprising a high speed video camera for simultaneously capturing real and reflected motion images of the reflective photonic probe, whereby the real and reflected motion images of the [film] reflective photonic probe can be correlated to the signal representing the [motion] deflection of the film.

15. (currently amended) A method of measuring the deflection of a film in a film gate having an aperture illuminated by a primary light source having an output spectrum, comprising the steps of:

a) mounting a measurement apparatus in the film gate, the measurement apparatus having:

1) a reflective photonic probe having at least one input optical fiber and at least one detection optical fiber cleaved and polished flat normal to their fiber axes and mounted parallel and at a fixed spacing relative to each other;

2) a measurement light source coupled to reflective photonic probe and emitting a wavelength of light outside of the primary light source's spectrum;

3) a photodetector coupled to the reflective photonic probe;

4) a narrow bandpass filter located between the photodetector and the reflective photonic probe, the narrow bandpass filter passing the light from the measurement light source and blocking the light from the primary light source; and

5) signal processing electronics connected to the photodetector for producing a signal representing the deflection of the film in the film gate as a function of time; and

b) measuring the deflection of the film with the measurement apparatus.

25. (currently amended) The method claimed in claim 15, further comprising the steps of providing a high speed video camera for simultaneously capturing real and reflected motion

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images of the reflective photonic probe and correlating the captured images [motion image of the film] with the signal representing the deflection [motion] of the film.

*Allowable Subject Matter*

1. **Claims 1-26** are allowed.
2. The following is an examiner's statement of reasons for allowance:

As to **claim 1**, the prior art of record, taken alone or in combination, fails to disclose or render obvious in an apparatus for measuring deflection of a film in a film gate "a reflective photonic probe having at least one input optical fiber and at least one detection optical fiber cleaved and polished flat normal to their fiber axes and mounted parallel and at a fixed spacing relative to each other" and "signal processing electronics connected to the photodetector for producing a signal representing the deflection of the film in the film gate as a function of time," in combination with the rest of the limitations of **claims 1-14**.

As to **claim 15**, the prior art of record, taken alone or in combination, fails to disclose or render obvious in a method of measuring the deflection of a film in a film gate "mounting a measurement apparatus in the film gate, the measurement apparatus having: a reflective photonic probe having at least one input optical fiber and at least one detection optical fiber cleaved and polished flat normal to their fiber axes and mounted parallel and at a fixed spacing relative to each other" and "measuring the deflection of the film with the measurement apparatus," in combination with the rest of the limitations of **claims 15-26**.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Fax/Telephone Numbers***

If the applicant wishes to send a fax dealing with either a proposed amendment or a discussion with a phone interview, then the fax should:

- 1) Contain either a statement "DRAFT" or "PROPOSED AMENDMENT" on the fax cover sheet; and
- 2) Should be unsigned by the attorney or agent.

This will ensure that it will not be entered into the case and will be forwarded to the examiner as quickly as possible.

*Papers related to the application may be submitted to Group 2800 by Fax transmission. Papers should be faxed to Group 2800 via the PTO Fax machine located in Crystal Plaza 4. The form of such papers must conform to the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CP4 Fax Machine number is: (703) 872-9306*

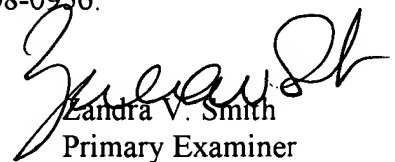
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gordon J. Stock whose telephone number is (571) 272-2431. The examiner can normally be reached on Monday-Friday, 10:00 a.m. - 6:30 p.m.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



gs

April 1, 2004

  
Zandra V. Smith  
Primary Examiner  
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